

ABSTRACT

A feedback information separating section (105) takes out information indicative of an eigenvector, eigenvalues, and the number of effective eigenvalues, i.e. the number of eigen values larger than a specified threshold value included in the feedback information sent from the communication party. A section (151) for controlling the number of multiplex sequences determines the number of multiplex sequences (number of transmission streams) of transmission data based on the number of effective eigenvalues, and performs serial/parallel conversion of a sequence of transmission data into the number of sequences thus determined. Performance can be enhanced in a communication system employing MIMO.